

NOVEMBER 7, 1921

Issued Weekly

PRICE 15 CENTS

# AVIATION AND AIRCRAFT JOURNAL



The State Capitol at Albany, N. Y.

VOLUME XI  
Number 19

## SPECIAL FEATURES

A NEW Langley CONTROVERSY  
THE J.L.12 ARMORED ATTACK AIRPLANE  
TRIALS OF SPERRY HIGH-LIFT WING  
APPLYING THE FIGURE OF MERIT  
THE AIR TRANSPORT FLIGHTS AT MINEOLA

THE GARDNER, MOFFAT CO., INC.  
HIGHLAND, N. Y.  
225 FOURTH AVENUE, NEW YORK

Four  
Dollars  
a Year

RECEIVED

NOV 7 1921  
FIELD OFFICERS SCHOOL  
LANGLEY FIELD, VA

# FACTS ON FLYING BOAT TRANSPORTATION

First Annual Report of Commercial Aviation Operations ever made in the United States  
compiled by the Aeromarine Airways for the Bureau of Aeronautics, Navy Department, Washington, D. C. For the Year ending October 27th, 1921.

From: AEROMARINE AIRWAYS, Inc.  
One Times Bldg., New York City

To: ADMIRAL W. A. MOFFETT,  
Director of Naval Aviation,  
Navy Building,  
Washington, D. C.

Subject: First Annual Report of Commercial Flying Operations.

The operations of the Aeromarine Navy Flying boats in the commercial transportation of passengers, mail and freight for the period commencing October 23, 1920 and ending October 27, 1921, is herewith outlined:

1. On eleven passenger flying routes of 1,000 miles or greater carried 3,044 passengers 40,000 miles in the air and transported 36,000 lbs. of mail and 5,000 lbs. of freight and baggage enroute or en mass.
2. On Deep Creek Panel five-passenger flying boats of 500 miles, 1,000 passengers 24,000 miles in the air, enroute or en mass.
3. One thousand three-hundred Deep boats covered 3,000 passengers 10,100 miles, exclusive of pilot.
4. Set a single passenger or employee was injured during these operations. The accident was maintained throughout with the exception of four forced landings during adverse weather conditions which caused only slight delays. These delays were later than would be caused by railroads in similar circumstances. The flying boat "OX-5" was lost from the air over Lake Huron, Michigan, during a forced landing, blowing against some rocks and damaged beyond repair. No one was injured at the time.
5. The services mentioned include Key West - Havana, Florida - Bahama Islands, New York - Atlantic City and New England ports, New York - Sights Seeing, Florida - Bahama Islands, New York - Albany, Great Lakes region, Mississippi River Valley.

## SUMMARY

The eleven-passenger Navy P-5 Flying boats operated on the Key West - Havana route during the Winter months, after which time these were laid up for the Summer. This remaining boat, MARIA MARIA, continued a flight from Key West to the northern Coast of South America, the British Virgin Islands, French Guiana, Surinam, Brazil, and back to Chicago, and thence west of the Illinois and Mississippi Rivers to New Orleans, thence along the Gulf to Key West, a total distance of 7,000 miles.

Of the one 500 Flying boats there were no constant operations and two were in reserve. One of these boats made a round trip circumnavigation of the Great Lakes. Flying 2,000 miles and carrying 200 passengers, another covered the New England ports.

For operations during the coming year on the Aeromarine-Navy passenger flying routes will be placed in operation on the Key West-Havana route and between Palm Beach and Miami and Miami and Tampa. Two other flying routes of the same type will be held in reserve for special chartered parties.

For the off-season period, November 1st to April 1st, Aeromarine OX-5 type will be placed in active operation and ten others will be held in reserve for special charters.

None of the Aeromarine Flying boats will be used for special service and special charters, with ten of these same type held in reserve.

Very truly yours,  
AEROMARINE AIRWAYS, Inc.,  
Charles C. RIDGES  
President

*The Aeromarine Airways is today the largest Aerial Transportation Company in the world operating flying boats exclusively.*

The experience gained in the successful operation of aircraft for commercial purposes, representing an investment of many hundreds of thousands of dollars, is furnished to purchasers of Aeromarine Flying Boats. There is no other Aerial Transportation Company in North America that has this information available.

There are many Cities that can use Aeromarine Flying Boats for the establishing of Airways. We have a limited number of new Aeromarine-Navy Flying Boats for sale and are accepting orders for Spring delivery. Write for catalog and dealer's proposition.

AEROMARINE ENGINEERING & SALES CO.  
TIMES BUILDING NEW YORK

"See us at Aeromarine."



## AVIATION FANS

build yourself a \$10,000.00 automobile chassis with an old high grade chassis and an overhauled OX-5, and have the satisfaction of driving a personally engineered custom automobile.

Very slight and easily made modifications only are necessary ordinarily on the motor and chassis.

The above photograph shows a Winton, year 1910 chassis with OX-5 motor and special body. Weight fully loaded 3,600 lbs., maximum speed 100 m.p.h. Four speed chassis, 18.3 miles per gallon of commercial gasoline by actual continuous check at 30 miles per hour in high gear without slipping clutch, acceleration starting stand to 45 miles per hour in 10 seconds. In three days city driving ran 145.2 miles on 9½ gallons of commercial gasoline.

Send self addressed and 4-cent stamped large envelope for general data on above and Marmon installation, or one dollar for detail instructions with photographs and OX-5 booklet.

## CURTISS AEROPLANE & MOTOR CORPORATION

GARDEN CITY



LONG ISLAND

# SPEED



Does it mean anything to you to save time?

Why do you travel by motor car rather than by horse and buggy?

Why by train rather than by motor-car?

Why the telephone?

Air travel is coming. It is fundamental that any vehicle which permits material saving in time of transportation must eventually become an economic necessity.

Don't let other towns profit by air travel at your expense simply because your particular town will not prepare for it.

*Vote for Your Municipal Landing Field*

**DAYTON WRIGHT COMPANY**



DAYTON, OHIO



"The birthplace of the airplane"

NOVEMBER 7, 1921

# AVIATION AND AIRCRAFT JOURNAL

VOL. XI. NO. 19

*Member of the Audit Bureau of Circulations*  
**INDEX TO CONTENTS**

Editorials	651	Kenneth Flieger and the R. R. Strike	342
A New Langley Controversy	652	Commercial Aviation in Hawaii	343
Conquest of Arctic Desert by Airplane	653	Fossil Aircraft Construction	343
The First American Documentary of Mississ.	654	Third Aviation Aviation Dinner	343
The J.I.M.S. Armored Attack Aeroplane	655	The Blimp as an Observation Balloon	343
Warning to Aviators	656	Operation of Forest Patrol	343
Movement of Aircraft Traffic	657	Airplane Activities at Spokane	343
Trials of the Spruce High-Lift Wing	658	Applying the Figure of Merit	344
Amiable Airplane at Kansas City and Omaha	659	New Naval Ordnance Launching Device	345
"Who's Who in American Aviation?"	660	Foreign Aviation News	346
Commercial Aircraft for Restaurants	662		

THE GARDNER-MOFFAT COMPANY, Inc., Publishers  
HIGHLAND, N.Y.

225 FOURTH AVENUE, NEW YORK

SUBSCRIPTION PRICE: FOUR DOLLARS PER YEAR. SINGLE COPIES FIFTY CENTS. CANADA, FIVE DOLLARS PER YEAR. POSTAGE PAID AT NEW YORK AND AT ADDITIONAL CHARGE OF ONE DOLLAR PER YEAR. PUBLISHED QUARTERLY BY THE GARDNER-MOFFAT COMPANY, INC.

PRINTED EVERY MONTH. POSTAGE PAID TEN DAYS PREVIOUSLY RECEIVED AS SECOND-CLASS MATTER NOV. 1, 1921, AT NEW YORK, AND AT ADDITIONAL CHARGE OF ONE DOLLAR PER MONTH. POSTAGE PAID AT HIGHLAND, N.Y., UNDER ACT OF MARCH 3, 1903.

## THOMAS-MORSE AIRCRAFT CORPORATION



Thomas-Morse T-3 biplane  
in flight over Shreveport, La.

THOMAS-MORSE AIRCRAFT CORPORATION

# BOEING AIRPLANE COMPANY

*Manufacturers of*

**EXCLUSIVELY DESIGNED**

**SEAPLANES  
FLYING BOATS  
AIRPLANES**

**CONTRACTORS TO UNITED STATES GOVERNMENT**

GEORGETOWN STATION  
SEATTLE WASHINGTON

Member of the Massachusetts Aircraft Association



L. D. Gammie, President  
W. D. Moffet, Vice President  
W. I. Scarff, Treasurer  
George Newbold, Business Manager

Vol. 28

NOVEMBER 7, 1931

No. 39

# AVIATION AND AIRCRAFT JOURNAL

LAWRENCE O'DONNELL, EDITOR  
ALFREDSON KLEINER,  
EDWARD P. WARREN,  
RALPH H. UPTON,  
CONTRIBUTING EDITORS

## Dispersion versus Unification

IT is not generally known that a score or more departments or bureaus of the government are all appearing before General Howe to urge astronomical appropriations in connection with their various activities. The list of the government agencies is truly impressive, as may be seen from the brief enumeration which follows:

The War Department naturally leads the list, but besides the bulk of the Air Service many other requests for astronomical appropriations appear in the estimates of this department. Thus, the Performance Bill has six aviation requirements. The Supply Card Bill and the well known Legislative, Executive and Judicial Bill look after the pay of the personnel. The Quartermaster Department, the Ordnance Department and the Signal Corps have likewise astronomical requirements.

The Navy, and the Bureau of Aeronautics was established had no requirements for naval appropriations scattered through half a dozen Bureau requests. The new organization makes it possible to have a single naval air appropriation, which considerably simplifies its study.

The Post Office Appropriation Bill carries the U. S. Air Mail needs. The National Advisory Committee for Aeronautics makes its requests independently. The Bureau of Standards, the Weather Bureau and the Government Printing Office have their astronomical work presented for in separate bills.

The brief and incomplete enumeration shows the extraordinary dispersion of astronomical interests which prevails in the present government organization. In seeking a remedy for the unfortunate state of affairs General Howe offers the example of a separate air department which contains all military and naval air activities, and separates and supports civil air transport. In France, on the other hand, the air services of the army and navy are separate organizations, but the aircraft engineering and construction service is unified under a sub-secretary of aeronautics. The latter establishes the astronomical estimates in accordance with the requirements of the respective services, and he also controls civil air transport and the national meteorological office. While that system of concurrently establishing the military and naval air estimates may be somewhat involved, it appears to give satisfaction, so that it should appeal to those who are opposed to a separate air department and a single air service.

The present ministry of defense, with under-secretaries for the Army, Navy and a separate Air Force yet to be created, which the Administration proposes, would probably be the best solution of the problem.

A great many people are reluctant to place the control of air transportation into the hands of the military for fear that such a solution might result in regulations which would have less regard for the commercial interests of air transport than for its military adaptability in time of war. This is

why it seems to me preferable to have a bureau of civil air transport in the Department of Commerce rather than in the proposed Ministry of Defense under an under-secretary of aeronautics. The latter's duties will necessarily be advisory at the first place, the term military being used in the sense of opposed to civil, and as he will be in charge of both army and naval aeronautics, these duties are likely to be of considerable magnitude. Hence, if civil air transport were put under his control it would be found that the under-secretary of aeronautics would find little time to take deep interest in problems which are primarily commercial.

## Third Aviators' Assistance Dinner

THE second Aviators' Assistance Dinner which was initiated by the now defunct American Flying Club in 1929 and which was perpetuated by the Aero Club of America when the two organizations joined forces, threatened this year to bring about a new rift in our aviation circles. For a time it seemed unlikely as if the year 1931 would see two aviators' assistance dinners—a practice which would have been highly regarded by all those who work for a closer and more cordial union of all aeronautical interests.

It is therefore gratifying to note that, thanks to the earnest efforts of both sides to come to an agreement the difficulties which threatened to split the Aviators' Dinner in two have been composed. Hence there will be but one Aviators' assistance on Nov. 13, at the Commodore Hotel. The dinner has the unqualified support of both the Aero Club of America, and of Lawrence L. Driggs, chairman of the committee which planned the Aviators' Dinner independently. It is to be hoped that all those who can do so will celebrate Aviators' Day at the Aviators' Dinner so as to make it the biggest and most successful aeronautical gathering of its kind.

## Aviation Recognition

THE appointment of Rear Admiral Moffet and Brigadier General Mitchell to the Technical Advisory Board of the Washington Conference for the Limitation of Armaments is of the greatest significance. Aviation, which hitherto seemed to be discounted by the older services, for the first time takes its seat at the conference table with spokesmen who know the importance of the new arm and are able to speak of it in intelligent terms.

Other governments are sending to Washington their air departmental representatives, and it was therefore generally feared that our own air services would, as heretofore, be represented by some ranking officer of the senior services. That the ablest aeronautical men in the Army and in the Navy were chosen for this post gives hope that out of the conference may come some negotiations which will give our air services a renewed importance and a more clearly recognized value.





## The Air Transport Demonstration at Mineola



The Fourth F-3 Bio-Rad® Cahn Microbalance (200 Hz) is now available. PAY LOAD, 1850 g.

With reference to the public demonstration of air transport which the Aero Club of America organized on Oct. 12 at Converse Field, Massachusetts, in, I, respectfully submit my views to the editor regarding the Air & Gas Club's observations on the performance of the three airplanes offered to the demonstration. These machines were the Fokker F-3 cabin monoplane, owned by the Netherlands Aircraft Corp., the J.L.S. cabin monoplane, owned by the J. L. Aeromarit Corp., and the Loening Model 32 flying yacht, owned by the Loening Aeroplane Co., Englewood, Ohio.

Following are the official reports referred to:

Editor: P.J. Wiegmann

Minerva, New York  
Leave 6:00 a.m.  
Arrived 11:30 a.m.  
Proceeded to  
Pittsford 1:30 p.m.  
Arrived  
Gas consumed  
10 gal. (at rate per gal. total dist.)  
45¢ (at \$1.00 per gal., total \$4.50)  
Weight received  
100 lbs.  
Price per lb.  
\$1.00  
Total  
\$100.00  
Total weight



THE J.L.S. SIX-DECADE CAREER MILESTONES (1955-1965, 1975-1985)

South Bay London	\$ 400
Annual Postage	8 1/2%
<b>Total</b>	<b>\$10.00</b>
	100% - 100% = 100% 100% = 100% 100% = 100%

Total \$10.47  
airline fee operating charter round-trip railroad rates (trainred  
one way) will work to New London being \$6.00 which works out  
to about 1/2 per passenger mile), according with miles with 4 pass-  
enger round-trip passenger miles at \$2.00 each  
airline fee above mentioned amount of \$10.47

**STOL, C W** President Ann Arbor Chamber Main St. S.E. Ann Arbor,  
Michigan 48104 USA

ROUTE SALES		ROUTE SALES	
AVERAGE SALES, Past Weekdays in TROY, ARGO, JR., etc.		AVERAGE SALES, Past Weekdays in TROY, ARGO, JR., etc.	
	Per cent Increase or Decrease		Per cent Increase or Decrease
TOTAL IN TRADE			
First Trip	—Left Troy Wednesday 8:30 Arrived Westhampton 10:30 Left Northport 10:30 Arrived Port Washington 11:30	No. of Miles 18	Miles 18



The Learning Matrix 12, Fall 2009, Review Edition, Kappa 102, The Learning Network

Major cities: 275K  
 Others: 210K  
 Total: 485K  
 Area: 100,000 sq km  
 Population: 1990: 10M  
 Observations: Substrate linear (10 m x 2.5 m) for 50% light from canopy  
 Site: 1000 m asl.  
 Altitude: 1000 m asl.  
 Water source: 1000 m asl.  
 Altitude: 1000 m asl.  
 Air temperature: 1000 m asl.  
 Rainfall: 1000 m asl.  
 Percentage canopy: 100% B.  
 Description: Primary forest, no signs of disturbance, no shrubs, no flowers.  
 Height: 10-15 m.  
 Status: Good condition. Three billion trees, 60%  
 Index: 4.12 g/m<sup>2</sup>

*Evening Model 55 Flying Yacht*  
EST. 1931

**Distance between Fort Washington, on deck of New London Ship & Engine Company, New London, Conn., a distance of 400 miles.**

**Bronxville** (approx 10 mi N of Bronx, about 1 hr by car) **25.00**  
 10% of total bill  
 10% of miles  
 10% of total  
 Overhead on food charges **0.00**

**Total** **89.15**

Details for operation, charging driveway, parking, etc., are as follows: Bronxville, \$4.00, which covers 10 miles with a passenger car. Bronxville, \$4.00, which covers 10 miles with a passenger car. Bronxville, \$4.00, which covers 10 miles with a passenger car. Bronxville, \$4.00, which covers 10 miles with a passenger car.

Approximate maximum expense of **89.15**

**Gathering a pony per night day of** **25.00**

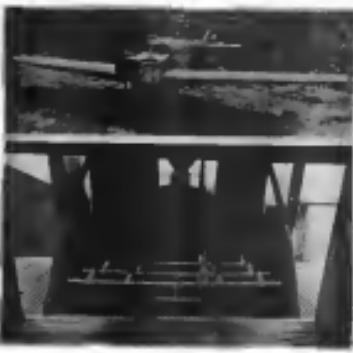
Price of **McCallum's** **Chick** **Breakfast**, **Shorter** **Waffles**

# The J.L.12 Armored Attack Airplane

The latest American airplane designed for military service has just been produced by the J.L. Aircraft Corp., of New York. The machine, known as Model J.L.12, is an armored attack airplane which carries thirty Thompson sub-machine guns, damaged in two batteries and is ten times faster than most posts.

## General Features

In designing this plane, it was Mr. Larson's idea to provide a flying machine which, through its high speed, its maneuverability under control and its ability to climb rapidly, could be used successfully against infantry either in the field or battle



ABOVE THE J.L.12 ARMORED AIRPLANE. BELOW: THE CONTROL STICKS OF THE FAMOUS MACHINE GUN BATTERIES

air while "going up", or to the rear, or to attack a convoy or a roadway. The machine is intended to come down near the enemy, fly low over him, perhaps at not more than fifty feet from the ground and open up with its battery of machine guns. After making a dash, the machine is to climb swiftly to give the gunner time to load his machine guns to repeat his attack.

The J.L.12 follows in design the general outline of the well-known J.L.10 combat monoplane which is characterized by all-metal construction and cantilever wings. However, the J.L.12 is built of American made hardware, produced by the Altimeter Co. of America. The sheet aluminum which covers the wings and the fuselage is 0.025 in. thick, or more than twice as thick as the materials of the earlier airplane.

In the internal housing of the wings, the sheet metal and hardware is applied. All the vulnerable portions of the airplane are protected by 3/8 in. armor plating, which is capable of resisting machine gun fire from close range.

## Armament

The main battery of the plane consists of twenty-eight machine guns arranged in two batteries. The first section of twelve guns is located directly below the engine's seat, and the second of sixteen guns, is mounted to the rear.

The firing is done by the manipulation of three levers, one being half the battery, another the other half, the third being a master lever which puts all twenty-eight guns into action with a single motion. The two remaining guns of the short

are fired at will by the pilot or gunner from the cockpit. The replacement of these magazines, for all the guns require only four magazines.

The forward Thompson guns are set at a slight forward angle, so the second battery point directly downward and the machine gun mounted slightly aft, so that fire from the plane does not damage the machine gun.

The circular drum of the Thompson gun requires 180 cartridges and the ammunition equipment for the plane in present consists of three drums for each of the thirty guns, a total of 5,400 cartridges.

Following are the specifications of the J.L.12 armored attack plane:

SPECIFICATION OF J.L.12 ARMORED AIRPLANE	
Type of machine	Twin-engine monoplane
Power plant	Two 300-h.p. Pratt & Whitney aircraft engines.
Wing area	200 sq. ft.
Engine power	90 h.p. in ground work
Weight empty	4,000 lbs.
Maximum weight	6,000 lbs.
Maximum speed	120 m.p.h. at 10,000 ft.
Rate of climb	1,000 ft. per min.
Service ceiling	15,000 ft.
Endurance	1 hour 15 min.
Landing speed	50 m.p.h.
Guns and am. capacity	28000 rounds
Range	450 miles

## Progress in Assembling the Airship Roma

The airship Roma, recently purchased by the United States from Italy, arrived at Langley Field in excellent condition in every respect, the envelope which contains the gas coming through as exemplified in this stage. The envelope is approximately inflated with gas, and the tail, which runs along the entire length of the ship as completely assembled, as well as the power part of the airship units.

The Roma is due to be completed and ready for its trial flights in this country sometime in November.

The Roma has a range of approximately 2,500 miles at 80 m.p.h. At cruising speed, a distance of 6,000 miles is estimated. Its capacity is 1,200-1600 cu. ft., length 420 ft., width 82 ft., height 98.6 ft., and useful load in the neighborhood of 30 tons. It is driven by six 12-cylinders, 400 h.p. Allison engines, and is equipped with identification lights, means of corresponding homopoles for the landing units, as well as repair replacement. The ship is of a semi-rigid construction and potentially no internal pressure is required to maintain its form under flight conditions.

Upon its entry, in various numerous experimental projects in connection with the functioning of the Army Air Service, the Roma was tested, including long-distance reconnaissance flights, photographic flights, moon patrol work, and the carrying of supplies for heroic Thorpe raids.

## Warning to Aviators

The Durand-Wright Co. notifies that pilots who are accustomed to using No. 3 carburetor at Durand, Ohio, known as Stark Field, should take particular caution to avoid a fence line that has been erected across the north end of the field. Owing to the existence of this fence the surface area of field available for landing has been reduced from the original 75 acres to about 40 acres.

## Movement of Air Service Troops

Officers have been issued indicating the 1st and 5th Regiments, Air Service, from temporary duty at Langley Field, Va., and directing their return to Mitchel Field, Long Island, N. Y. These two squadrons consist of 6 officers and about 75 enlisted men.

# Trials of Sperry High Lift Wing

The Lawrence Sperry Aircraft Co. of Farmington, L. I., who have done much work for the government, worked a high-lift monoplane, which, when on the Standardized Testings of the J.N. type, impressed the Aero Club of America to witness the trials of a single machine on Aviation Day at Castle Field, Sunday, Oct. 16, 1925.

The Aero Club appeared as observers Mr. George W. Purdie and three other members of the club, who all rode in the machine in addition to the pilot, Lawrence B. Sperry. The machine was in excellent condition.

Pilot and 4 passengers  
Gas and oil for 5½ hr. and instruments  
850 lb.  
350 -

Total  
After leaving the machine as above stated, three Air Service Officers kindly consented to witness the length of run



THE "SPERRY-JEESUP" ON AVIATION DAY AT CASTLE FIELD, NEW YORK. MINNEHA, L. L., SHOWN TO TAKE OFF WITH FOUR PASSENGERS

that the machine took in getting off, and after measuring this, it was found to be 308 yds. against a wind of approximately 5 m.p.h.

The first test was a climbing test, and the figures recorded by the Aero Club were 22,000 ft. in 10 sec.

The next test concerned the length of glide, which is one of the first tests of all machines. The machine had a full load and was considered fast. It was found that the machine glided a distance of one mile and a quarter and losing only 600 ft. altitude.

After this, the speed test was run from Mitchel between the water tower at Mitchel Field, and the water tower at Westover, a distance of 1.59 miles, and although the wind was at a rate of approximately 15 deg. in the course, which effected a loss in the average speed, 80.8 m.p.h. was officially registered.

The following official comments were made by the observers of the Aero Club of America:

The machine taxied very well on taxi way and also very well with the wind.

The machine did not show a tendency to nose over.

It made a fine vertical landing.

The machine handles very well when taxing with tail wind on the ground.

Generalization of the Sperry Monoplane High-Lift Wing

The Sperry high-lift wing, as was stated before, is designed to be as safe as any very fine piece finished, where a better all-round performance is desired.

The wing is so constructed that it is absolutely interchangeable from one position to another. All that is necessary is to remove the struts, so a fastening is to remove the four fuselage struts, remove them, replace them with special fittings supplied by the manufacturer. These fittings in turn take the fuselage type of struts.

The wing is internally braced and in case, completely free from external bracing wires, thus permitting very easy and quick erection and dismantling. Setting up the wing is a simple and simple operation that it is practically impossible to make any mistakes in setting up on other delicate adjustments, so that highly skilled engineers are unnecessary. The wing is built up with very strong deep E beams, with solid spruce web and ash cap strips. The ribs are built up with light spruce with spruce caps, and the leading edge is spruce. The wing is covered with spruce and the leading edge is spruce. The wing is covered with spruce and the

wirecovered frame. It was send tested standing a factor of safety of 10 before failure, with a deflection of 8 in. at a factor of safety of 6.

PRINCIPAL CHARACTERISTICS OF A CASTLE J.N. EQUIPPED WITH SPERRY MONOPLANE HIGH-LIFT WING AREA

Length	68 ft.
Height	10 ft.
Width span	36 ft.
Width body	10 ft.
Width wheel	20 ft.
Maximum speed	120 m.p.h.
Endurance	1 hr. 15 min.
Service ceiling	15,000 ft.
Cruise with pilot and 4 passengers in 5 hr.	80 m.p.h.
Cruise with pilot and 4 passengers in 6 hr.	75 m.p.h.
Cruise with pilot and 4 passengers in 7 hr.	70 m.p.h.
Cruise with pilot and 4 passengers in 8 hr.	65 m.p.h.

range of action

## Amaldo Airplanes at Kansas City and Omaha

Amaldo airplanes were well represented at both the American Legion Derby at Kansas City and the International Air Show Congress at Omaha. Two smaller craft, namely A-300-C and A-300-B, entered in the racing competition of both meets, while four A-300's were entered in the speed events—the American Legion Derby and the Pulitzer Trophy Race.

The Aero Import Co. of New York, the American sales agency for these planes, entered an A-300-C and an A-300-B on its own account, as both entries while the others were handled by the Birmingham Aeroplane Co. of Detroit, the Douglas Co. of Chicago, and Lake-Motor Plane of Goldsmith, Wis.



# Commercial Aircraft for Emergencies

In view of the threatened railroad strike, some called off, the Manufacturers Aircraft Association telegraphed to Secretary of Commerce Hoover a report of the aircraft available for emergency transportation.

"There are at least 1,200 commercial aircraft now definitely available for the carriage of passengers and express. They are of both land and water, cargo and passenger types. Fifty are in commission in the vicinity of New York. Others in proportion are available out of Boston, Philadelphia, Baltimore, Key West, New Orleans, Kansas City, Dayton, Ohio, Cleveland, Ohio, Chicago, Buffalo, Milwaukee, points in Texas, Los Angeles, San Francisco and Seattle. The aircraft carry from 10 to 100 passengers, the maximum weight to drivers, drivers. Some have a nonstop range of flight from 200 to 800 miles. Arrangements must be made for fuel and service, and advice that municipalities that wish to aid their drivers of aerial transportation, place their airports on commission.

The offer to Secretary Hoover was based upon reports now being received by the American Association from all parts of the United States. These reports show that there are probably 1,200 commercial aircraft, distributed in every part of the country, but it is thought only about two-thirds of these are suitable and available for cross-country flying.

The fifty or more planes in Greater New York are in commission on the various fields on Long Island and New Jersey.

The American Airlines, Inc., offers one plane, passenger carrying, from New York to Boston, using boats available at Keypoint, N. J., and Key West, Fla.

The Curtiss Aeroplane and Motor Corp. has twenty, two and three-place land machines ready at Garden City, and expects that their digits, in all parts of the country, have several hundred more of similar types lined up for flight.

The Boeing Aeromarine Engineering Corp., whose Flying Tug has recently been operating between New York and New London, claims that the company is ready for Boston, Philadelphia or Washington service.

Lorraine Safety has six-passenger light-wing Curtiss J.S. monoplanes, the Messenger and a story of Aeron.

The Wisconsin Aircraft Corp. of Waukegan Heights, N. J., reports four land planes. The Wisconsin company also lists eleven other aircraft available from its Post Office Box 1000 Department to rail companies of the Delafieldlands for the Air Mail. These Delafield's can carry six or seven passengers or 500 pounds of mail.

The J.E. Aircraft Corp. has five J.E. monoplanes at Central Park, L. I., each carrying six people. These planes are to leave shortly for the middle west, but will be available in New York or other cities or may be recalled to New York or sent wherever needed.

At Carter Field on Long Island there are three air-line free-passenger P.V.A. land planes of the Aero Import Corp., and two Fokker monoplanes of the Netherlands Aircraft Co., each carrying five passengers. Their stops are already in service.

Reports from over the country state that the Thomas Marine Co., Elkhorn, the Glens L. Martin Co. at Cleveland, G. E. & H. Co. at Delafield, the Dayton Wright Co. at Dayton, Ohio, and the Boeing Aeroplane Co. at Seattle are ready to provide service, and wherever possible to put more machines in the air. The Dayton Wright Co. has three long range cruisers, one of which carries four passengers, and which is in frequent operation between cities of the middle west. Two more land and one air-water aeroplane are available at the Boeing Co. and Seattle. The Boeing line connects with Victoria, B. C.

Promulgated extensive service can be provided by the Kinnear, Ind., where there is a large air port with fifteen or twenty machines, Minneapolis with twenty-five, Hurley, and San Francisco and Los Angeles. In the two latter cities the California-Curtiss Co., the Missouri Aviation Co. and the Rogers Aeroplane have available a hundred planes of various types.

Aerial transportation will fill the demand for the urgent movement of negotiable banking paper, checks, etc., the moving of which will relieve the financial system, it will meet to a great degree the problem of carrying the mails. The Air Mail, which has connected between New York and San Francisco has connected between New York and the South end of Washington and could, if advisable, operate two more between New York and Chicago, taking in Pittsburgh, Ft. Wayne, etc. The airmail agents and the route is charted between the Twin Cities and St. Louis. Air travel is so common between San Francisco and Los Angeles as to make possible direct flights. Various railroads extended south to Portland and east to Spokane and Missoula.

The same type of stupendous capable of carrying the mails and also transport limited quantities of food, but it is believed that the greatest service will be in providing service to government officials or business men on whom travel from point to point may depend the starting out of such problems, such as nuclear energy, atomic bombs, and the like, in the water supply. Although the present railroad effort has been negligible, we have had out over most of the United States, and there are enough of the seventeen thousand planes in training to use the ships available.

## Kansas Plains and the Railroad Strike

The Aviation Committee of the American Legion Executive Committee went to Postmaster General Will Hays offering the services of the Legion in the event of a railroad strike. Kansas City is increasing its rates for the United States air mail service during periods when the Postmaster General is quoted as Washington dispatches as saying he would put in service if the threatened railway strike ties up mail sufficiently to warrant such action.

## Commercial Aviation in Hawaii

The Star-Advertiser of Honolulu is favorably impressed with the possibilities for the rapid development of commercial aerial transportation in Hawaii, stating that the conditions, climatic and geographical, are ideal for this group of islands for an all-the-year airplane service. Stories of great severity are extremely rare, and each island affords its hours of peaceful, protected sunnier weather for airplanes which, of course, are the type of flying machines best adapted for interisland flights. It believes that the development of small aircraft and seaplanes, which will give in a commercial airplane service sufficient facilities to make the venture profitable and, if not at the outset, at least as soon as a period of successful operations convinced people of its practicability. Army and Navy airmen who have made many inter-island flights are variously unanimous in the opinion that a commercial service is feasible. If it is they who have done the flying, the blasting of the air will do, so speak.

## French Airplane Construction

A London financial journal states that the French Military Air Service will next year have over 40,000 airplanes, of the Army Budget press. The French Flying Corps would then be composed of 280 regiments, each of twelve squadrons. French military constructors are at present in a very favorable position, mainly because of the French Government's decision to decentralize, but allowed contractors to erect the greater number of them. It was thought that this would be the best way of modernizing the French air industry.

In addition, the French constructors had in hand substantial orders from Japan and South America. It is to this point and to the most intelligent cooperation of the French military technical services with civilian engineers that France sees her present lead in the air.

# Third Aviators' Armistice Dinner

The third Aviators' Armistice Dinner will be held this year in the large banqueting hall of the Commodore Hotel, New York, on the evening of Nov. 11, 1935, at 7 p. m. Tickets for the dinner will be \$7.50 and may be secured from the American Legion Armistice, Arms Club of America, 14 East 42d Street, New York.

This is the annual reunion dinner of all the Air Service Officers from all over the United States to get together again to honor the memory of a comrade. When it is desired to pay particular tribute this may be done by breaking in the cables and flying to another point. Further tests will be made in the near future.

## Operation of Forest Patrol

A report from the Air Office of the 8th Corps Area, commanding the forest fire patrol activities for the entire section of Idaho, Oregon, and Washington, last year showed the following on Sept. 30: the number of patrols, 389; number of acres covered, 149,315; number of square miles observed, 7,530,454; flying time 562 hours and 56 minutes; and the number of planes in commission, 47. The patrol bases were located at Camp Lewis, Wash., Spokane, Oregon, Mather Field, Calif., Calif., Corning, Calif., and Vicksburg, Miss. The Patrons of Oregon and Washington were disbanded on Sept. 13, after having completed a very successful season, despite the shortage at times of gasoline and oil, necessitating the temporary suspension of operations.

## Aviation Activities at Spokane

The development of interest in aviation has proceeded steadily in Spokane. While the city is not day morally there were ten planes on the Foster Russell landing field. They included the machines of Fred W. Blumig, a banker and wheat grower of Fernway; Albert Holdkirk, a Spokane inventor; Charles E. Riddle, theater owner; J. D. Rankin, pilot; Walter Mills, W. H. Floutz, an attorney of Walla Walla; David Mathews of Moscow, Idaho; Spokane Industries, C. L. Langford, pilot; Ranch Field, Spokane, and the Holdkirk and Blumig families, members of the Russell Co. Half of the roofing planes were flown by their owners or operators.

Four men are employed in setting up a new Zeppelin plane for use on the field. It will be of 150 hp., equipped with an electric starter, and will be ready for the air shafts.

## Two Interesting Foreign Airplanes



LEFT: MONOSOUPÉ HD-33 ALL-METAL RACER MONOPLANE. RIGHT: CHAMONIX-LEVASSEUR "RE-VERSO-BLAUW" (200 HP. BENTLEY) OF THE TYPE SHIPPED TO JAPAN.

Photo G. G. Gray



## Foreign Aeronautical News

## Czechoslovakia

The progress made in Prague in aerial transport since its inauguration there last February is striking. Daily services of airplanes connect Prague with Paris, Strasbourg and Warsaw, while the next few months will see the city linked with Berlin, Vienna, Belgrade, Constantinople, Copenhagen and Berlin. During February there were 1,000 passengers taken from Prague to Paris by air. By June the figure had risen to nearly six for the month. The Franco-Hungarian Air Navigation Company has some forty airplanes in service, most of which carry five passengers, together with their baggage. This company has already transported over 2,000 passengers and made a single mishap has been recorded. In the transport of parcels, however, the record is poor, as no baggage is taken place. In February 16 lbs of parcels were transported; in June, exclusive of newspapers, some 7,000. It was carried. In February the quantity of newspapers taken by air was some 3 lb. weight. By June this had grown to a little more than 150 tons weight.

For the extension of the air services to Constantinople a large number of Czechoslovakian aircraft have been sent with 2,000 hp. and will be fitted for the accommodation of sixteen passengers with the baggage. It is to attain an average speed of 120 m.p.h.

## China

For the purpose of maintaining peace and order of administration the Agricultural Department has organized a Airborne Police Training Corps, which consists of 200 men divided into five groups commanded by a commanding officer. The work of this new organization was completed on June 1.

The Agricultural Department has engaged four new pilots from America and America for service as consultants with the Police Department. The four Americans are Captain Jones, McMillan, Campbell, Cook and C. H. Dungey.

The five students sent by the Agricultural Department to England to study air-line construction have completed their courses after one year's hard study. Three of these students have been assigned to the Tsin-kuo Airfield Institute, where technical experts are needed. The remaining two were ordered to America to continue their studies in military aviation.

## France

An engineering firm in France, according to the Paris Echo, has just completed its first airplane which will carry six passengers, this plane being intended for the London-Paris service, and will cross over the Thames and the Seine. Service between the rivers of the two capitals has long been under consideration, saving as it would nearly an hour in the time now taken for the distance from London to the heart of Paris. It is more than probable that by next spring a Thames-Seine service will be inaugurated.

A DHF seaplane belonging to the British De Havilland Aircraft Co., making a tour of Europe, recently reached Paris after a nonstop flight covering a distance of 4,250 miles. The seaplane left London on August and went first to Paris and then to the port of Brest, Hamburg, Copenhagen and Stockholm, via Copenhagen, Berlin to Copenhagen, and then flew to Berlin, Warsaw, Poznan, Vienna, Vienna and Milan, reaching Paris by way of Milan. The tour was completed without a landing and en route time.

## Ecuador

The Ecuadorian minister of communications has been authorized to sign a contract with a French company, the Cie Franco-Ecuadorean de Navigacion Aeronautica, under which the company has the right to establish a network in Ecuador on the Paris-Buenos Aires-Venezuela-Bogota-Buenos Aires-Buenos Aires-Buenos Aires route over a period of twenty years. The agreement carries with it an annual maximum subsidy of \$500,000 to the Company in return for certain guarantees, including the placing of its material and personnel at the disposal of the Ecuadorian government in the event of mobilization.



**CALIFORNIA**  
SAN FRANCISCO CALIFORNIA  
EARL P. COOPER AIRPLANE & MOTOR CO.

**ILLINOIS**  
CHECKERBOARD AIRPLANE SERVICE  
FOREST PARK, ILLINOIS

**PENNSA**  
One of the largest and best equipped flying fields  
in the country.  
**CURTISS-INDIANA COMPANY**  
Kosciusko, Indiana  
ALL TYPES OF CURTISS PLANES

**KANSAS**  
GULF STATES AIRCRAFT COMPANY  
BIRCHWOOD, KAN.

**MASSACHUSETTS**  
BOSTON AND SPRINGFIELD, MASS.  
EASTERN AIRCRAFT CORP.  
348 FIRST ST., BOSTON, MASS.

**MINNESOTA**  
WHITE BEAR LAKE, MINN.  
The Twin Cities' chief aeronautic resort.  
Harold G. Peterson Aircraft Company  
SCHOOL OF AVIATION

**NEW YORK**  
AEROMARINE AIRWAYS, INC.  
Twin City Aviation, Inc., New York  
II. Passenger Flying Cruises—8 passengers, open and enclosed Flying Boats. Sightseeing Tours—Flights to Shore and Lake Resorts.

**NEW YORK & NEW JERSEY**  
CURTISS FIELD, GARDEN CITY, LONG ISLAND  
EQUIPPED FOR HELICOPTERS, PLANE  
FLYING STATION, ATLANTIC CITY, N.J.  
CURTISS AEROPLANE & MOTOR CORPORATION

**OHIO**  
DAYTON, OHIO.  
Kippel, Marquart, Stapp and Field • Midway Express Units  
JOHNSON AIRPLANE & SUPPLY CO.

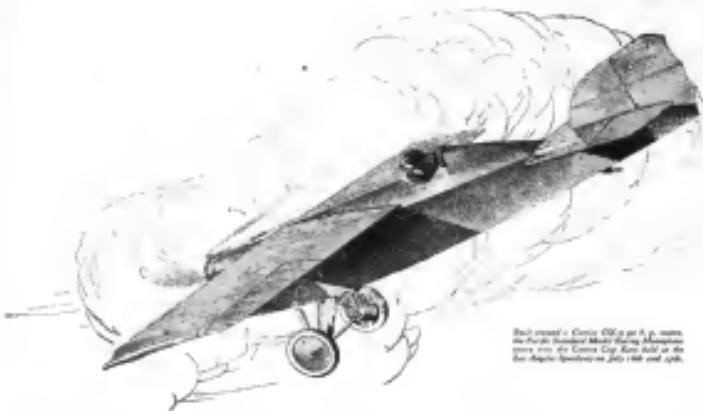
**OREGON**  
LAND OR WATER FLYING  
ORCHARD WASHINGTON AND OREGON AIRPLANE COMPANY  
PORTLAND, OREGON

**PENNSYLVANIA**  
Flight School and Commercial Aviation  
Official Photo Studio of the Pennsylvania  
PHILADELPHIA AERO-SERVICE CORPORATION  
438 Broad Street Trust Building, Philadelphia.

**WISCONSIN**  
CURTISS-WISCONSIN AIRCRAFT CO.  
FLYING SCHOOL  
Milwaukee Air Park  
CELESTE E. MEINHEIMER  
410-412-414-416-418 Milwaukee, Wis.

If you are one of the company or your state having less than 100,000 population for passenger carrying, pilot training and general flights, you should be represented in WHERE TO FLY next week.

26 Conservation Insertions \$200.00



Biplane, a Curtiss O-52, on a p. 2000 ft. altitude. Max. speed 130 m.p.h. 100 ft. altitude. Made a loop-the-loop over the Cahuenga Pass Road field at the Los Angeles Speed Derby July 19th and 20th.

## Two Miles a Minute—and More—

137½ miles an hour—and in a 90 h.p. plane! This was the speed achieved by the Pacific Standard Model Racing Monoplane in recent tests at Los Angeles.

At such a speed, skin friction looms up as a factor of tremendous importance.

In constructing this sturdy little plane, the Pacific Airplane and Supply Company determined to reduce all resistances to the nth degree. No wonder they demanded the finest finish that skilled workmen could produce. No wonder the varnish they specified was Valspur—for they knew that no other Varnish could be depended upon to give so fine and lasting a finish.

After months of service a Valspur surface still gleams smooth and bright, for Valspur is waterproof and exceptionally durable. Wonderfully elastic and tough, Valspur never fails to give thorough protection from vibration and weather, oil, gasoline and grease.

VALENTINE'S  
**VALSPUR**  
The Varnish That Won't Turn White

**VALENTINE & COMPANY**  
Largest Manufacturers of High-grade Varnishes in the World  
ESTABLISHED 1873

New York Chicago Boston Toronto  
London Paris Amsterdam  
W. S. FULLER & CO., Pacific Coast







*Department where tools, templates, jigs, gauges, etc. are specially made for The Glenn L. Martin Company's sole and exclusive use.*

## THE MACHINE THAT MAKES IT

A poet once wrote of the typical American —

*"He'll make the thing and  
the machine that makes it."*

In scarcely any other branch of manufacturing is "the machine that makes it" so much an elementary and necessary part of the whole fabrication as in the shops where Glenn L. Martin planes are built.

The perfect vibrationless operation of every part is dependent on the absolute accuracy of the tools, templates, jigs and gauges made by The Glenn L. Martin Company for its own use.

Only machinists of the very highest order can be trusted with this intricate and responsible work for upon it depends so much of that fine reputation for endurance which is constantly maintained by The Glenn L. Martin Planes.

**THE GLENN L. MARTIN CO.**

CLEVELAND

*Member of the Manufacturers Aircraft Association*



TRADE-MARK



TRADE-MARK